

BEST AVAILABLE COPY

DUPLICATE
ALREADY CONSIDERED

12/10/03 13:38 0000 434 0470 STEPHEN J. JOHNSON & ASSOCIATES, P.C. 12/11/03

Please type or print page (1) inside this box

Based on: PTO/SE-02 a & b (3-02)
Approved for use through 05/31/2003 OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Application Number	10/040,915
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	SPLX.P0022

U.S. PATENT DOCUMENTS					
16.	2003/0056187	01/14/2002	Steven Teig et al.	Another continuation of 2003/0079193	
17.	2003/0056044	01/13/2002	Steven Teig et al.	Application with some of the same parent provisional applications and with the same specification as the present application except for summary and abstract	
18.	2003/0066045	01/13/2002	Steven Teig et al.	Application with some of the same parent provisional applications and with the same specification as the present application except for summary and abstract	
19.	2002/0133798	12/06/2000	Steven Teig et al.	Application regarding related placement technology	
20.	2002/0100007	12/06/2000	Steven Teig et al.	Application regarding related placement technology	
21.	2002/0073390	12/13/2000	Steven Teig et al.	Application regarding related placement technology	
22.	S/N 09/737,220	12/13/2000	Steven Teig et al.	Application regarding related placement technology	
23.	S/N 09/737,245	12/13/2000	Steven Teig et al.	Application regarding related placement technology	
24.	S/N 09/739,460	12/15/2000	Steven Teig et al.	Application regarding related placement technology	
25.	2002/0124231	12/15/2000	Steven Teig et al.	Application regarding related placement technology	
26.	S/N 09/739,589	12/15/2000	Steven Teig et al.	Application regarding related placement technology	
27.	S/N 09/742,171	12/19/2000	Steven Teig et al.	Application regarding related placement technology	
28.	2003/0121015	12/19/2000	Steven Teig et al.	Application regarding related placement technology	
29.	2002/0069397	01/13/2002	Steven Teig et al.	Application regarding related placement technology	
30.	2002/0170027	02/20/2002	Steven Teig et al.	Application regarding related placement technology	
31.	2002/0157075	02/20/2002	Steven Teig et al.	Application regarding related placement technology	
32.	2003/0088841	12/23/2002	Steven Teig et al.	Application regarding related placement technology	

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST, 10 if possible. * Applicant is to place a check mark here if English language translation is attached.
This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

BEST AVAILABLE COPY

DUPLICATE

7 12/10/03 13:38 1050 534 0475 SUBSTITUTE JOURNALISEN & AUSTIN MAILING AGENCY EXAMINER: AUSTIN LEO 10/14

9/26/03

ALREADY CONSIDERED

Please type a plus sign (+) inside this box ☐

Based on PTO-5805 & 5-0 (03-03)
Approved for use through 05/01/2003. OMB 0551-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/040,915
				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	
				Examiner Name	
Sheet	1	of	1	Attorney Docket Number	SPLX.P0022

U.S. Patent Documents						
Examiner Initials	Cite No.	U.S. Patent Document		Date of Publication MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Related Application Data
		Number				
	1.	2003/0043827 S/N 10/040,953		01-05-2002	Steven Teig et al.	Previously specified
	2.	2003/0023943 S/N 10/040,954		01-05-2002	Steven Teig et al.	Previously specified
	3.	2003/0066042 S/N 10/040,963		01-05-2002	Steven Teig et al.	Previously specified
	4.	2002/0174412 S/N 10/041,942		01-07-2002	Steven Teig et al.	Previously specified
	5.	2003/0088844 S/N 10/041,957		01-07-2002	Steven Teig et al.	Previously specified
	6.	2002/0199165 S/N 10/046,864		01-13-2002	Steven Teig et al.	Previously specified
	7.	2003/0056187 S/N 10/047,982		01-14-2002	Steven Teig et al.	Previously specified
	8.	2002/0073390 S/N 09/737,210		12-13-2000	Steven Teig et al.	Previously specified
	9.	2002/0124231 S/N 09/739,580		12-15-2000	Steven Teig et al.	Previously specified
	10.	2003/0121015 S/N 09/745,067		12-19-2000	Steven Teig et al.	Previously specified
	11.	2002/0166105 S/N 10/040,948		01-05-2002	Steven Teig et al.	Previously Specified
	12.	2003/0088841 S/N 10/329,241		12-23-2002	Steven Teig et al.	Previously specified
	13.	2003/0088845 S/N 10/047,978		01-13-2002	Steven Teig et al.	Continuation of the parent application (2003/0079193) of the present application.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kind: Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. * Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-0100 and select option 2

BEST AVAILABLE COPY

DUPLICATE

12/10/03 13:38 6050 934 04/3 Statler Jonhansen & Aueli Mail Aueli - EXAMINER Andrew Liu 03/12

ALREADY CONSIDERED

11/17/03

Please type a plus sign (+) inside this box ☐

Based on PTO/SB-08 (3-5-01-03)
Approved for use through 05-31-2003 OMB 0551-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/040,915
				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	A. Liu
Sheet	1	of	7	Attorney Docket Number	SPXX.P0022

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent Document Number Kind Code (if known)	Date of Publication MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	1.	2001/0009 031	A1	07-19-2001	Nitta et al.	
	2.	2002/0182 844	A1	12-05-2002	Igarashi et al.	
	3.	2003/0005 399	A1	01-02-2003	Igarashi et al.	
	4.	4,593,363		06-03-1986	Bursic et al.	
	5.	5,267,176		11-30-1993	Anreth et al.	
	6.	5,566,078		10-15-1996	Ding et al.	
	7.	5,587,923		12-24-1996	Wang	
	8.	5,618,744		04-08-1997	Suzuki et al.	
	9.	5,635,736		06-03-1997	Funaki et al.	
	10.	5,637,920		06-10-1997	Loo	
	11.	5,640,327		06-17-1997	Ting	
	12.	5,663,891		09-02-1997	Bamji et al.	
	13.	5,757,089		05-26-1998	Ishizuka	
	14.	5,784,289		07-21-1998	Wang	
	15.	5,798,936		08-25-1998	Cheng	
	16.	5,838,583		11-17-1998	Varadarajan et al.	
	17.	5,889,677		03-30-1999	Yasuda et al.	
	18.	5,980,093		11-09-1999	Jones et al.	
	19.	6,070,108		05-30-2000	Andreev et al.	
	20.	6,128,767		10-03-2000	Chapman	

Examiner Signature	Date Considered
-----------------------	--------------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. * Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37CFR 1.37 and 1.93. The information is required to obtain or retain a benefit by the public which is to be paid by the USPTO to process an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

* If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

FAX RECEIVED

DEC 12 2003

BEST AVAILABLE COPY

TECHNOLOGY CENTER 2800

1
DUPLICATE

ALREADY CONSIDERED

4 12/10/03 13:36 1030 324 0470 3/11/03 JONHONSON & ROYAL 10/04/03 10/04/03 10/04/03 10/04/03

Based on PTO/5E-03 s 5 b (02-03)
Approved for use through 05/31/2003 OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.
Please type a plus sign (+) inside this box ☒

Substitute for form 1449A/PTO				Application Number	10/040,915
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	A. Liu
Sheet	2	of	7	Attorney Docket Number	SPLX.P0022

U.S. PATENT DOCUMENTS					
	21.	6,150,193		11-21-2000	Glenn
	22.	6,209,123	B1	03-27-2001	Maziasz et al.
	23.	6,219,832	B1	04-17-2001	Buzbee
	24.	6,226,560	B1	05-01-2001	Hama et al.
	25.	6,249,902	B1	06-19-2001	Igusa et al.
	26.	6,253,363	B1	06-26-2001	Gasarov et al.
	27.	6,295,634	B1	08-25-2001	Matsumoto
	28.	6,307,256		10-23-2001	Chiang et al.
	29.	6,316,838	B1	11-13-2001	Ozawa et al.
	30.	6,324,674	B2	11-27-2001	Andrejev et al.
	31.	6,324,675	B1	11-27-2001	Dylla et al.
	32.	6,327,693	B1	12-04-2001	Cheng et al.
	33.	6,330,707	B1	12-11-2001	Shinomiya et al.
	34.	6,407,434	B1	06-18-2002	Rostoker et al.
	35.	6,415,422	B1	07-02-2002	Mehrotra et al.
	36.	6,442,743	B1	08-27-2002	Sarratzadeh et al.
	37.	6,448,591	B1	09-10-2002	Juengling
	38.	6,473,891	B1	10-29-2002	Shively
	39.	6,480,991	B1	11-12-2002	Cho et al.
	40.	6,490,713	B2	12-03-2002	Matsumoto
	41.	6,519,751	B2	02-11-2003	Sriram et al.
	42.	6,543,043	B1	04-01-2003	Wang et al.
	43.	6,546,540	B1	04-08-2003	Igarashi et al.

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document: by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. * Applicant is to place a check mark here if English language translation is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to it's (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-5199 and select option 2.

BEST AVAILABLE COPY

FAX RECEIVED

DEC 1 2 2003

TECHNOLOGY CENTER 2800

DUPLICATE

4 12/10/03 13:30 1000 75

LAURENCE HARRIS LTD 0011

ALREADY CONSIDERED

Please type a plus sign (+) inside this box: ☐

Based on PTO/JB28 a 3.0 (05-03)
Approved for use through 05/31/2003. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/040,915
				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	A. Liu
Sheet	3	of	7	Attorney Docket Number	SPLX.P0022

U.S. PATENT DOCUMENTS					
	44.	6,557,145	B2	04-29-2003	Boyle et al.
	45.	6,567,967	B2	05-20-2003	Greidinger et al.

FOREIGN PATENT DOCUMENTS								
Examiner's Initials	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Y ²
		Office ³	Number ⁴	Kind Code (if known)				
	46.	JP	411296560	A	Matsumoto et al.	10-29-1999	with English translation of Abstract;	
	47.	JP	2000-82743	A	Igarashi et al.	03-21-2000	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	48.	JP	H03-173471	A	Tawada et al.	07-26-1991	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	49.	JP	H05-242379	A	Masako Kubota	09-21-1993	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	50.	JP	H05-102305	A	Akihiro Sato	04-23-1993	with Japanese Patent Office's English translation of Abstract; and with English translation of the	✓

Examiner Signature		Date Considered	
---------------------------	--	------------------------	--

¹ EXAMINER: Initial & reference considered, whether or not citation is in conformance with MPEP 600. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ² Applicant's unique citation designation number (optional). ³ See Index Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. ⁷ Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is in the (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND THESE OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form call 1-800-PTO-9199 and select option 2.

BEST AVAILABLE COPY

DUPLICATE
ALREADY CONSIDERED

Please type a plus sign (+) inside this box ☐

Based on PTO-500 a 3 b (05-03)
 Approved for use through 05/31/2003. OM 3551-0031
 U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/040,915
				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	A. Liu
Sheet	4	of	7	Attorney Docket Number	SPLX.00022

FOREIGN PATENT DOCUMENTS							
							application.
51.	JP	H07-86407	A	Shinpei Miura	03-31-1995	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
52.	JP	H09-162279	A	Masaaki Yoshida	06-20-1997	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 603. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 If possible. * Applicant is to place a check mark here if English language translation is attached.
 This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2

BEST AVAILABLE COPY

DUPLICATE

ALREADY CONSIDERED

Please type a plus sign (+) inside this box ☐

Based on PTO/SB/28 a & b (05-63)
Approved for use through 05/31/2003 QMB 0631-0131
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/040,915
				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	A. Liu
Sheet	5	of	7	Attorney Docket Number	SPLX.P0022

FOREIGN PATENT DOCUMENTS			
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published.	1*
	53.	Ahuja, R. et al., Faster Algorithms for the Shortest Path Problem, Journal of the Association for Computing Machinery, vol. 37, No. 2, April 1990, pp. 213-223.	
	54.	Brady, L. et al., Channel Routing on a 60° Grid, extended abstract, pp. 956-931.	
	55.	Brambilla, A. et al., Statistical Method for the Analysis of Interconnects Delay in Submicrometer Layouts, IEEE, 8/2001, pp. 957-966.	
	56.	Carothers, K., A Method of Measuring Nets Routability for MCM's General Area Routing Problems, 1999, pp. 186-192.	
	57.	Chen, H. et al., Physical Planning of On-Chip Interconnect Architectures, 2002, IEEE, International Conference, pp. 30-35.	
	58.	Cheng, K., Steiner Problem in Optilinear Routing Model, a Thesis Submitted for the Degree of Master of Science, National University Singapore, 1995, pp. 1-122.	
	59.	Chip Model with Wiring Cost Map, August 1983, IBM Technical Disclosure Bulletin, vol. 26, iss. 3A, pp. 929-933.	
	60.	Cong, J. et al., Efficient Heuristics for the Minimum Shortest Path Steiner Arborcscence Problem with Applications to VLSI Physical Design, Cadence Design Systems and UCLA Computer Science Department, pp. 88-95.	
	61.	Cong, J. et al., Performance-Driven Multi-Layer General Routing for PCB/MCM Designs, UCLA Computer Science Department, 1998, pp. 356-361.	
	62.	Enbody, R. et al., Near-Optimal n-Layer Channel Routing, 23 rd Design Automation Conference, 1986, pp. 708-714.	
	63.	Fang, S. et al., Constrained Via Minimization with Practical Considerations for Multi-Layer VLSI/PCB Routing Problems, 28 th ACM/IEEE Design Automation Conference, 1991, pp. 60-65.	
	64.	Hom, I. et al., Estimation of the Number of Routing Layers and Total Wirelength in a PCB Through Wiring Distribution Analysis, 1996, pp. 1-6.	
	65.	Hong, X. et al., Performance-Driven Steiner Tree Algorithms for Global Routing, 30 th ACM/IEEE Design Automation Conference, 1993, pp. 177-181.	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard S1.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard S1.16 if possible. * Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

BEST AVAILABLE COPY

DUPLICATE

ALREADY CONSIDERED

Please type a plus sign (+) inside this box ☒

Based on PTO/SB-93 a & b (MS-33)
 Approved for use through 05/31/2003. OMB 3531-0031
 U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of
 information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Application Number	10/040,915
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	1/5/02
		First Named Inventor	Steven Teig
		Group Art Unit	2825
		Examiner Name	A. Liu
(use as many sheets as necessary)		Attorney Docket Number	SPLX.P0022
Sheet	6	of	7

FOREIGN PATENT DOCUMENTS	
66.	Hu, J. et al., A Timing-Constrained Algorithm for Simultaneous Global Routing of Multiple Nets, IEEE/ACM International Conference on Computer Aided Design, ICCAD - 2000, IEEE/ACM Digest of Technical Papers (CAT. NO.00CH37140), Proceedings of International Conference on Computer Aided Design (ICCAD), San Jose, CA, USA, 5-9 Nov. 2000, pp.99-103.
67.	Kasiner, R. et al., Predictable Routing, IEEE/ACM International Conference on Computer Aided Design, ICCAD - 2000, IEEE/ACM Digest of Technical Papers (CAT. NO.00CH37140), Proceedings of International Conference on Computer Aided Design (ICCAD), San Jose, CA, USA, 5-9 Nov. 2000, pp. 110-113.
68.	Khoo, K. et al., An Efficient Multilayer MCM Router Based on Four-Via Routing, 30 th ACM/IEEE Design Automation Conference, 1993, pp. 590-595.
69.	Lillis, J. et al., Table-Lookup Methods for Improved Performance-Driven Routing, 1998, pp. 368-373.
70.	Lipski, W. et al., A Unified Approach to Layout Wireability, Mathematical Systems Theory, 1987, pp. 189-203.
71.	Lodi, E. et al., A Preliminary Study of a Diagonal Channel-Routing Model, Algorithmica, 1989, pp.585-597.
72.	Lodi, E. et al., Lecture Notes in Computer Science, A 4d Channel Router for a Two Layer Diagonal Model, pp. 464-476, July 1988.
73.	Naclerio, N. et al., Via Minimization for Gridless Layouts, 24 th ACM/IEEE Design Automation Conference, 1987, pp. 159-165.
74.	Nam, G. et al, Satisfiability-Based Layout Revisited: Detailed Routing of Complex FPGAs Via Search-Based Boolean SAT, 1999, pp. 167-175.
75.	Oh, J. et al., Constructing Lower and Upper Bounded Delay Routing Trees Using Linear Programming, 33 rd Design Automation Conference, 1996.
76.	Partitioning Logic on to Graph Structure, IBM Technical Disclosure Bulletin, February 1990, vol. 32, iss. 9A, pp. 469-475.
77.	Phillips, N., Channel Routing by Constraint Logic, Department of Computer Science Southern Illinois University, ACM, 1992.
78.	Takashima, Y. et al, Routability of FPGAs with Extremal Switch-Block Structures, IEICE Trans. Fundamentals, vol. E81-A, No. 5, May 1998, pp. 850-856.

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kind's Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). * For Japanese patent documents, the indicator of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. * Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete. Including preparing, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2

BEST AVAILABLE COPY

DUPLICATE

ALREADY CONSIDERED

Please type a plus sign (+) inside this box ☐

Based on PTO/SE-08 a & b (05-03)
Approved for use through 05/31/2003 OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it carries a valid OMB control number.

Substitute for form 1449/APTO				Application Number	10/040,915
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Filing Date	1/5/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	A. Liu
Sheet	7	of	7	Attorney Docket Number	SPLX.P0022

FOREIGN PATENT DOCUMENTS		
79.	Thakur, S. et al., Algorithms for a Switch Module Routing Problem, 1994, pp. 265-270.	
80.	Theune, D. et al., HERO: Hierarchical EMC-constrained routing, 11/1992, IEEE pp 468-472	
81.	Tseng, H., Timing and Crosstalk Driven Area Routing, pp. 378-381.	
82.	Wang, D., Novel Routing Schemes for IC Layout, Part I: Two-Layer Channel Routing, 28 th ACM/IEEE Automation Conference, 1991, pp. 49-53.	
83.	Wang, M. et al., Modeling and Minimization of Routing Congestion, Jan. 2000, IEEE proceedings of ASP-DAC, Asia and South Pacific, pp. 185-190.	
84.	Wood, G. et al., FPGA Routing and Routability Estimation Via Boolean Satisfiability, Department of Electrical and Computer Engineering Carnegie Mellon University, Pittsburgh, PA, pp. 119-125.	
85.	Zhang, C.X. et al., Floorplan Design Using a Hierarchical Neural Learning Algorithm, IEEE, 6/1991, pp. 2060-2063.	
86.	Zhou, H. et al., An Optimal Algorithm for River Routing with Crosstalk Constraints, 1996.	
87.	Zhou, H. et al., Global Routing with Crosstalk Constraints, Department of Computer Sciences, University of Texas, 1998, pp. 374-377.	
88.	Zhou, H. et al., Optimal River Routing with Crosstalk Constraints, ACM Transactions on Design Automation of Electronic Systems, vol. 3, No. 3, July 1998, pp. 496-514.	

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. * Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22312-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22312-1450.

If you need assistance in completing the form, call 1-800-PTO-9159 and select option 2

BEST AVAILABLE COPY